

## FIRE ALARM GENERAL NOTES

GENERAL SCOPE — MODIFY EXISTING FIRE ALARM SYSTEM AS INDICATED DUE TO RENOVATION AND RECONFIGURATION IN WORK AREAS. COORDINATE FIRE ALARM INSTALLATION AND DEMOLITION WITH PHASING PLAN PER SHEET 500-91-003.

1. <u>APPLICABLE CODES</u>:

DEPARTMENT OF VETERANS AFFAIRS (VA) FIRE PROTECTION DESIGN MANUAL, SIXTH EDITION, ISSUED SEPTEMBER 2011.

NATIONAL FIRE ALARM CODE, 2010 EDITION.

NFPA 70 NATIONAL ELECTRIC CODE, 2011 EDITION.

NFPA 101 LIFE SAFETY CODE, 2009 EDITION.

- 2. REFER TO SPECIFICATION 283100 FOR ADDITIONAL INFORMATION. IF A CONFLICT OCCURS, THE MORE STRINGENT REQUIREMENT SHALL APPLY.
- 3. <u>NOTIFICATION</u>: PROVIDE PRIVATE MODE STAFF RESPONSE EVACUATION OF THE ZONE OF ALARM ORIGIN ONLY IN ACCORDANCE WITH NFPA 72 AND VA.

AUDIBLE SIGNAL SHALL CONFORM TO ANSI S3.41 AUDIBLE EMERGENCY EVACUATION SIGNAL (I.E., TEMPORAL THREE PATTERN) [VA 7.3.F.2].

SOUND PRESSURE LEVEL FROM AUDIBLE ALARM APPLIANCES SHALL NOT EXCEED 110 DBA IN ANY OCCUPIED AREA [NFPA 72 7.4.1.2]. AND SHALL BE DESIGNED TO REINITIATE MODE OPERATING REQUIREMENTS.

- 4. ALL NEW CONDUIT AND BACK BOXES SHALL BE CONCEALED IN FINISHED SPACES UNLESS OTHERWISE NOTED.
- 5. ALL CIRCUIT WIRING SHALL BE CLASS B.
- 6. ALL SYSTEM POWER AND GROUND CIRCUITS SHALL BE TYPE "THHN" SOLID COPPER SIZED ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS AND THE APPLICABLE CODES AND BE INSTALLED IN EMT TYPE CONDUIT.
- 7. ALL WIRING, CABLES, BOXES, TROUGHS AND OTHER RELATED EQUIPMENT SHALL BE INSTALLED IN STRICT COMPLIANCE WITH THE NATIONAL ELECTRICAL CODE (NEC).
- 8. SECONDARY POWER SUPPLY SHALL BE VIA DEDICATED FIRE ALARM BATTERIES CAPABLE OF OPERATING THE SYSTEM ON STANDBY FOR 24 HOURS FOLLOWED BY 5 MINUTES WITH THE SYSTEM AT FULL CAPACITY [NFPA 72 4.4.1.5.3.1]. CHARGING AND METERING SHALL BE PROVIDED IN ACCORDANCE WITH NFPA 72.
- 9. PERFORM TESTING IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS AND NFPA 72.
- 10. INCLUDE THE SYSTEM WIRING, RACEWAYS, PULL BOXES, TERMINAL CABINETS, OUTLET AND MOUNTING BOXES, CONTROL EQUIPMENT, ALARM, AND SUPERVISORY SIGNAL INITIATING DEVICES, ALARM NOTIFICATION APPLIANCES, AND OTHER ACCESSORIES AND MISCELLANEOUS ITEMS REQUIRED FOR A COMPLETE OPERATING SYSTEM EVEN THOUGH EACH ITEM IS NOT SPECIFICALLY MENTIONED OR DESCRIBED. PROVIDE SYSTEM(S) COMPLETE AND READY FOR OPERATION.
- 11. PROVIDE EQUIPMENT MATERIALS, INSTALLATION, WORKMANSHIP, INSPECTION, AND TESTING IN STRICT ACCORDANCE WITH THE REQUIRED AND ADVISORY PROVISIONS OF NFPA 72, ISO 7240-16. IEC 60268-16, EXCEPT AS MODIFIED HEREIN. THE SYSTEM LAYOUT ON THE DRAWINGS SHOWS THE INTENT OF COVERAGE AND DEVICE/APPLIANCES ARE SHOWN IN SUGGESTED LOCATIONS. SUBMIT SHOP DRAWINGS SHOWING DEVICE LOCATIONS, TERMINAL CABINET LOCATIONS, JUNCTION BOXES, OTHER RELATED EQUIPMENT, CONDUIT ROUTING, WIRE COUNTS, CIRCUIT IDENTIFICATION IN EACH CONDIUT, AND CIRCUIT LAYOUTS FOR ALL FLOORS. DRAWINGS SHALL COMPLY WITH THE REQUIREMENTS OF NFPA 170. FINAL QUALITY, SYSTEM LAYOUT, AND COORDINATION ARE THE RESPONSABILITY OF THE CONTRACTOR.

## FIRE ALARM DEMOLITION NOTES

- 1. MINIMIZE DISRUPTIONS TO FIRE ALARM SYSTEMS. IF FIRE ALARM SYSTEM ARE TO BE DISRUPTED, ENSURE PROCEDURES ARE INCORPORATED TO MAINTAIN EQUIVALENT LEVELS OF FIRE PROTECTION AND PROVIDE FORMAL NOTIFICATION TO THE FACILITY WHILE SYSTEMS ARE DOWN.
- 2. THE CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE ALL PARTS, MATERIALS AND PROGRAMMING TO MAINTAIN SYSTEM OPERABILITY.
- 3. NEW DEVICES INSTALLED BUT NOT YET IN SERVICE SHALL BE TAGGED "NOT IN SERVICE." UPON ACCEPTANCE OF NEW FIRE FIRE ALARM SYSTEM TAGS SHALL BE REMOVED.
- 4. ANY EXISTING SYSTEM DEVICES TAKEN OUT OF SERVICE SHALL BE TAGGED "NOT IN SERVICE."
- 5. UNUSED DEVICES, WIRE AND CONDUIT SHALL BE DEMOLISHED. REPAIR ANY SURFACES DAMAGED BY FIRE ALARM DEMOLITION.
- 6. EXISTING WIRE AND CONDUIT MAY BE REUSED.

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MANUAL PULL STATION								
SMOKE DETECTOR	•	•		•			•	
DUCT DETECTOR		+ +	•	•	•	•		
AUTOMATIC SPRINKLER SYSTEM FLOW SWITCH	•	•		•			•	
AUTOMATIC SPRINKLER SYSTEM TAMPER SWITCH		+ +	•	•				
FACU CIRCUIT FAULT (OPEN, GROUND, SHORT)				•				
OTHER TROUBLE CONDITION				•				
PRIMARY AC POWER LOSS		+						1

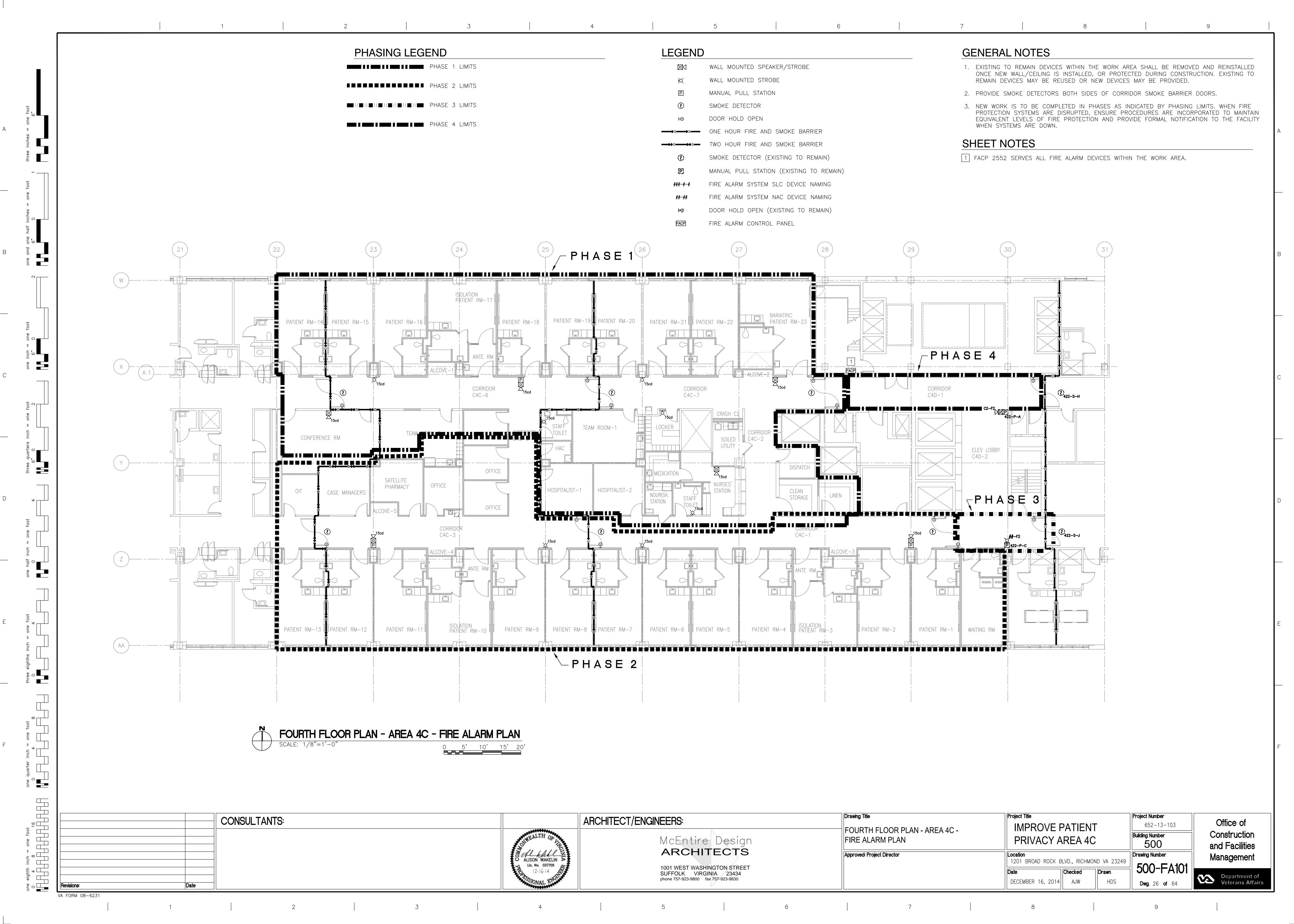
FIRE ALARM INPUT-OUTPUT MATRIX

NO SCALE

FA-001 **1** 

	CONSULTANTS:		ARCHITECT/ENGINEERS:		Project Title  IMPROVE PATIENT	Project Number 652-13-103	Office of
		OMNEALTH OF	McEntire Design	FIRE ALARM GENERAL NOTES		Building Number 500	Construction and Facilities
		Lic. No. 037705	1001 WEST WASHINGTON STREET SUFFOLK VIRGINIA 23434	Approved: Project Director	1201 BROAD ROCK BLVD RICHMOND VA 23249	Drawing Number 500-FA001	Management
Revisions: Date		JONAL ENGIN	phone 757-923-9800 fax 757-923-9830		DECEMBER 16, 2014 AJW HDS	<b>Dwg</b> . 25 <b>of</b> 64	Department of Veterans Affairs

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## FIRE SPRINKLER GENERAL NOTES

GENERAL SCOPE — ALTER EXISTING WET PIPE SPRINKLER PROTECTION THROUGHOUT THE WORK AREA IN ACCORDANCE WITH APPLICABLE CODES LISTED BELOW AND AS INDICATED ON CONTRACT DRAWINGS.

- 1. <u>APPLICABLE CODES</u>:
  - VA DEPARTMENT OF VETERANS AFFAIRS FIRE PROTECTION DESIGN MANUAL,
  - SIXTH EDITION, ISSUED SEPTEMBER 2011.
  - NFPA 13 INSTALLATION OF SPRINKLER SYSTEMS, 2013 EDITION.
  - NFPA 101 LIFE SAFETY CODE, 2012 EDITION.
- 2. REFER TO SPECIFICATION FOR ADDITIONAL INFORMATION. IF A CONFLICT OCCURS, THE MORE STRINGENT REQUIREMENT SHALL APPLY.
- 3. WET PIPE SPRINKLER PIPE SHALL BE U.L. LISTED BLACK STEEL, MINIMUM SCHEDULE 40 FOR ALL PIPE DIAMETERS EXCEPT WHERE A WATER QUALITY EVALUATION HAS BEEN DONE PERTAINING TO CORROSION. IF THE WATER QUALITY PERMITS, SCHEDULE 10 STEEL PIPING MAY BE USED FOR PIPE DIAMETERS NOMINALLY GREATER THAN 2 INCHES.
- 4. ALL AREAS ARE LIGHT HAZARD UNLESS OTHERWISE INDICATED ON CONTRACT DRAWINGS.
- 5. QUICK RESPONSE SPRINKLERS SHALL BE UTILIZED THROUGHOUT [VA 6.1.J].
- 6. PERFORM TESTING IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS AND NFPA 13.
- 7. PROVIDE SIX SPARE SPRINKLERS OF EACH TYPE USED AND SPARE SPRINKLER CABINET AND REQUIRED WRENCHES. INSTALL IN APPROVED LOCATION.
- 8. IDENTIFICATION SIGNS SHALL BE PROVIDED ON CEILINGS OR AREAS WHERE SPRINKLER CONTROL VALVES, SECTIONAL VALVES, INSPECTOR TEST VALVES, TAMPER VALVES, AND ALL OTHER RELATED SPRINKLER COMPONENTS ARE CONCEALED FROM VIEW.
- 9. THESE DRAWINGS DEMONSTRATE THE CONFIGURATION OF MAJOR SYSTEM COMPONENTS. THEY ARE DIAGRAMMATIC IN NATURE AND ARE NOT INTENDED TO SHOW EXACT LOCATIONS. PIPE LENGTHS AND ELEVATIONS INDICATED ON THE DRAWINGS (IF SHOWN) ARE APPROXIMATE. COORDINATE FINAL INSTALLATION WITH ACTUAL FIELD CONDITIONS AND OTHER CONSTRUCTION TRADES.
- 10. RUN SPRINKLER PIPING TIGHT TO THE CEILING.

	CONSULTANTS:		ARCHITECT/ENGINEERS:	Drawing Title	Project Title  IMPROVE PATIENT	Project Number 652-13-103	Office of	
		ONNEALTH OF	McEntire Design	FIRE SUPPRESSION GENERAL NOTES	PRIVACY AREA 4C	Building Number 500	Construction and Facilities	
		ALISON WAKELIN A Lic. No. 037705 12-16-14	O ALISON WAKELIN A Lic. No. 037705	ARCHITECTS  1001 WEST WASHINGTON STREET	Approved: Project Director	Location 1201 BROAD ROCK BLVD., RICHMOND VA 23249	Drawing Number 500-FX001	Management
Revisions: Date			SUFFOLK VIRGINIA 23434 phone 757-923-9800 fax 757-923-9830		Date DECEMBER 16, 2014 AJW Drawn HDS	Dwg. 27 of 64	Department of Veterans Affairs	

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